

What is claimed is:

CLAIMS

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- 2    1.    A method for managing an auction, comprising:  
3           specifying an auction behavior; and  
4           specifying at least one rule for controlling when a bid may be placed  
5           automatically for a bidder in the auction according to the specified auction behavior.
  
- 1    2.    The method of claim 1, further comprising:  
2           automatically placing at least one bid for a bidder according to the at least one  
3           rule and according to at least one specified bidding behavior.
  
- 1    3.    The method of claim 2, wherein the specified bidding behavior comprises a  
2           maximum bid and a minimum bid increment.
  
- 1    4.    The method of claim 2, wherein automatically placing at least one bid for the  
2           bidder comprises:  
3           if a highest bid in the auction is not from the bidder, placing the bid according to  
4           the at least one specified bidding behavior at a time according to the at least one rule.
  
- 1    5.    The method of claim 1, further comprising:  
2           receiving at least one bid placed automatically according to the at least one rule  
3           and according to at least one specified bidding behavior.
  
- 1    6.    The method of claim 1, wherein specifying an auction behavior comprises  
2           determining the auction behavior according to information about the auction.
  
- 1    7.    The method of claim 6, wherein the information about the auction comprises at  
2           least one of information about an item, information about a seller and information about  
3           bidders.

1 8. The Method of claim 7, wherein determining the auction behavior comprises;  
2 receiving information about one or more prior auctions, wherein each of the prior  
3 auctions has an associated auction behavior;  
4 identifying at least one of the prior auctions as similar to the auction based on the  
5 information about the auction and the information about the one or more prior auctions;  
6 and  
7 selecting one or more of the prior auctions identified as similar to the auction.

1 9. The method of claim 8, further comprising selecting the auction behavior  
2 associated with the selected one or more prior auctions as the auction behavior.

1 10. The method of claim 8, wherein identifying at least one of the prior auctions  
2 similar to the auction comprises:  
3 comparing information about the auction to the information about the one or  
4 more prior auctions using a metric to obtain a measure; and  
5 comparing the measure to a threshold defining an extent of similarity.

1 11. The method of claim 8, wherein the selected one or more prior auctions has a best  
2 outcome among the at least one of the prior auctions identified as similar to the auction.

1 12. The method of claim 11, wherein a best outcome is at least one of a highest price  
2 and a fastest sale.

1 13. The method of claim 1, wherein specifying at least one rule comprises:  
2 associating at least one rule with at least one candidate auction behavior from  
3 which the auction behavior is specified; and  
4 selecting the at least one rule associated with the specified auction behavior.

1 14. The method of claim 13, wherein associating at least one rule with each candidate  
2 auction behavior comprises:  
3 determining at least one rule that corresponds to each candidate auction behavior;  
4 and  
5 storing the at least one rule in a database.

1 15. The method of claim 14, wherein determining at least one rule which corresponds  
2 to each candidate auction behavior comprises:  
3 characterizing each candidate auction behavior; and  
4 selecting rules corresponding to the candidate auction behavior.

1 16. The method of claim 13, wherein a candidate auction behavior is a behavior of an  
2 auction similar to the current auction.

1 17. The method of claim 1, further comprising:  
2 evaluating actual auction behavior according to bids received in the auction; and  
3 modifying the at least one rule for controlling when a bid may be placed  
4 automatically in the auction according to the actual auction behavior.

1 18. The method of claim 17, wherein evaluating the actual auction behavior  
2 comprises:  
3 characterizing the actual auction behavior according to bids received in the  
4 auction;  
5 comparing the selected auction behavior to the actual auction behavior.

1 19. The method of claim 17, wherein modifying the at least one rule comprises:  
2 selecting at least one alternative rule corresponding to the actual auction  
3 behavior.

1 20. The method of claim 19, wherein selecting the at least one alternative rule  
2 comprises selecting the at least one alternative rule randomly from among a plurality of  
3 rules.

1 21. A system for managing an auction, comprising:  
2 means for identifying an auction behavior; and  
3 means for identifying at least one rule for controlling when a bid may be placed  
4 automatically for a bidder in the auction according to the selected auction behavior.

1 22. A system for managing an auction, comprising:

2                   an auction behavior selector providing an indication of a selected auction  
3                   behavior; and  
4                   a rule generator having an input for receiving an indication of the selected auction  
5                   behavior and an output providing at least one rule for controlling when a bid may be  
6                   placed automatically for a bidder in the auction to encourage the selected auction  
7                   behavior.

1   23.   The system of claim 22, wherein the auction behavior selector comprises:  
2                   a comparator having an input for receiving the information about the at least one  
3                   prior auction and information about the auction, and an output for providing an  
4                   indication of at least one of the prior auctions similar to the auction;  
5                   a selector having an input for receiving the indication of one or more of the prior  
6                   auctions identified as similar to the auction and an output for providing an indication of  
7                   the auction behavior associated with a selected one or more of the prior auctions.

1   24.   A computer program product comprising:  
2                   a computer readable medium; and  
3                   computer program instructions stored on the computer readable medium, wherein  
4                   the computer program instructions, when executed by a computer, direct the computer to  
5                   perform a method for managing an auction, the method comprising:  
6                   selecting an auction behavior; and  
7                   specifying at least one rule for controlling when a bid may be placed  
8                   automatically for a bidder in the auction according to the selected auction behavior.

1   25.   A method for selecting an auction behavior for an auction, comprising:  
2                   receiving information about the auction; and  
3                   matching the information about the auction to an auction behavior.

1   26.   The method of claim 25, wherein matching the information about the auction to  
2                   the auction behavior comprises:  
3                   receiving information about one or more prior auctions, wherein each of the prior  
4                   auctions has an associated auction behavior;

5 identifying at least one of the prior auctions similar to the auction using the  
6 information about the auction and the information about the one or more prior auctions;  
7 and  
8 selecting one or more of the prior auctions identified as similar to the auction.

1 27. The method of claim 26, further comprising selecting the auction behavior  
2 associated with the selected one or more prior auctions as the auction behavior.

1 28. The method of claim 26, wherein identifying at least one of the prior auctions  
2 similar to the auction comprises:

3 comparing information about the auction to the information about the one or  
4 more prior auctions using a metric to obtain a measure; and  
5 comparing the measure to a threshold defining an extent of similarity.

1 29. The method of claim 26, wherein the selected one or more prior auctions has a  
2 best outcome among the at least one of the prior auctions identified as similar to the  
3 auction.

1 30. The method of claim 29, wherein a best outcome is at least one of a highest price  
2 and a fastest sale.

1 31. The method of claim 25, further comprising:  
2 evaluating actual auction behavior according to bids received in the auction.

1 32. The method of claim 31, wherein evaluating the auction behavior comprises:  
2 characterizing the actual auction behavior according to bids received in the  
3 auction; and  
4 comparing the selected auction behavior to the actual auction behavior.

1 33. The method of claim 32, further comprising determining whether to implement a  
2 new rule if the auction behavior is substantially different from the selected auction  
3 behavior.

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2 34. A system for selecting an auction behavior for an auction, comprising:

3 means for accepting information about the auction; and

4 means for comparing the information about the auction to a behavior.

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2 35. A system for selecting an auction behavior for an auction, comprising:

3 a behavior database in which associations between information about auctions

4 and auction behaviors is stored; and

5 a behavior selector having an input for receiving information about the auction

6 and an output for providing an indication of an auction behavior for the auction using the

behavior database

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2 36. A computer program product comprising:

3 a computer readable medium; and

4 computer program instructions stored on the computer readable medium, wherein

5 the computer program instructions, when executed by a computer, direct the computer to

6 perform a method for selecting an auction behavior for an auction, the method

comprising:

7 receiving information about the auction; and

8 matching the information about the auction to an auction behavior.

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2 37. A method for specifying at least one rule for automatic bidding in an auction,

comprising:

3 receiving an indication of a selected auction behavior; and

4 matching the auction behavior to the at least one rule to encourage the auction

5 behavior.

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2 38. The method of claim 37, wherein matching the auction behavior to rules

comprises:

3 associating at least one rule with at least one candidate auction behavior from

4 which the auction behavior is selected; and

5 selecting the at least one rule associated with the selected auction behavior.

1 39. The method of claim 38, wherein a candidate auction behavior is a behavior of an  
2 auction similar to the current auction.

1 40. The method of claim 38, wherein associating at least one rule with each candidate  
2 auction behavior comprises:

3 determining at least one rule which corresponds to each candidate auction  
4 behavior; and

5 storing the selected rules in a database in manner accessible by an indication of  
6 the candidate auction behavior.

1 41. The method of claim 40, wherein determining at least one rule which corresponds  
2 to each candidate auction behavior comprises:

3 characterizing each candidate auction behavior; and  
4 selecting rules corresponding to the candidate auction behavior.

1 42. The method of claim 37, wherein the selected auction behavior differs from  
2 actual auction behavior during the auction, the method further comprising:

3 determining whether the selected auction behavior should be modified; and  
4 modifying the at least one rule for controlling when a bid may be placed  
5 automatically in the auction according to the actual auction behavior.

1 43. The method of claim 42, wherein modifying the at least one rule comprises:  
2 selecting a rule corresponding to the actual auction behavior

1 44. The method of claim 43, wherein selecting a rule comprises selecting the rule  
2 randomly from among a plurality of rules corresponding to the actual auction behavior.

1 45. A system for specifying a rule for automatic bidding in an auction, comprising:  
2 means for accepting an indication of a selected auction behavior; and  
3 means for comparing the auction behavior to rules to encourage the auction  
4 behavior.

1 46. A system for specifying a rule for automatic bids in an auction, comprising:

2 a rule database in which associations between rules and auction behaviors are  
3 stored; and

4 a rule selector having an input for receiving an indication of a selected auction  
5 behavior and an output providing rules to encourage the auction behavior from the rule  
6 database.

1 47. A computer program product, comprising:

2 a computer readable medium; and

3 computer program instructions stored on the computer readable medium, wherein  
4 the computer program instructions, when executed by a computer, direct the computer to  
5 perform a method for specifying a rule for automatic bids in an auction, comprising:

6 receiving an indication of a selected auction behavior; and

7 matching the auction behavior to rules to encourage the auction behavior.

1 48. A method for automatically placing a bid for an item for a bidder in an auction,  
2 comprising:

3 determining whether a bid for the bidder may be accepted;

4 applying a rule associated with the bidder and having a condition specifying  
5 when to place a bid; and

6 if the condition of the rule is satisfied, and if a highest bid in the auction is not  
7 from the bidder, and if a bid for the bidder may be accepted, placing the bid according to  
8 a specified bidding behavior.

1 49. The method of claim 48, wherein the condition is defined by information about  
2 the auction.

1 50. The method of claim 49, where the information about the auction includes at least  
2 one of a number of bids subsequent to a previous bid by the bidder and a period of time  
3 elapsed since the previous bid by the bidder.

1 51. The method of claim 49, wherein the information about the auction includes at  
2 least one of information about bidders participating in the auction, information about

3 bidders registered for the auction, information about status of the auction, and  
4 information about the item.

1 52. A system for automatically placing a bid for an item for a bidder in an auction,  
2 comprising:

3 means for evaluating a rule associated with the bidder and having a condition  
4 specifying when to place a bid; and  
5 means, operative if the condition of the rule is satisfied and if a highest bid in the  
6 auction is not from the bidder and if a bid may be accepted for the bidder, for submitting  
7 the bid according to a specified bidding behavior.

1 53. A system for automatically placing a bid for an item for a bidder in an auction,  
2 comprising:

3 a rule application engine having an output indicative of when to place a bid  
4 according to a rule associated with the bidder and having a condition specifying when to  
5 place a bid; and

6 a bid generator, having a first input for receiving a specified bidding behavior and  
7 having an output for providing, when a time to place the bid arrives, an indication of a  
8 bid according to the specified bidding behavior if a highest bid in the auction is not from  
9 the bidder and if a bid may be accepted for the bidder.

1 54. A computer program product, comprising:

2 a computer readable medium; and

3 computer program instructions stored on the computer readable medium, wherein  
4 the computer program instructions, when executed by a computer, directs the computer  
5 to perform a method for automatically placing a bid for an item for a bidder in an  
6 auction, the method comprising:

7 determining whether a bid for the bidder may be accepted;

8 applying a rule associated with the bidder and having a condition specifying  
9 when to place a bid; and

10 if the condition of the rule is satisfied, and if a highest bid in the auction is not  
11 from the bidder and if a bid for the bidder may be accepted, placing the bid according to  
12 a specified bidding behavior.

1       55.    A method for determining a behavior of an auction, comprising:  
2           receiving information indicating bidding information for an auction;  
3           determining at least one of an average time period between bids and an average  
4           increment between bids; and  
5           storing the determined information as an associated auction behavior.

1       56.    A method for determining a beneficial auction behavior for an auction of an item,  
2           comprising:  
3            receiving information indicating an outcome and bidding information for a  
4            plurality of concluded auctions of similar items;  
5            determining a behavior of each of the concluded auctions from the bidding  
6           information:  
7            selecting the behavior of the auction having the best outcome as the beneficial  
8           auction behavior.

1       57.    A digital information product, comprising:  
2           a computer-readable medium; and  
3           information stored on the computer-readable medium and defining data  
4           associating each of one or more desired auction behaviors to one or more rules for  
5           controlling when a bid may be placed automatically for a bidder in an auction.

1       58.    A digital information product defining a proxy bidder, comprising:  
2           a computer-readable medium;  
3           information stored on the computer-readable medium and defining data  
4           associating a maximum bid and a bidder with an indication of a rule for controlling when  
5           a bid may be placed automatically for a bidder in an auction.